

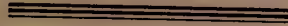
# THE BIRD-STONE CEREMONIAL

...by...

WARREN KING MOOREHEAD.



BEING AN ACCOUNT OF SOME  
SINGULAR PREHISTORIC ARTI-  
FACTS FOUND IN THE UNITED  
STATES AND CANADA.



FIFTY THREE ILLUSTRATIONS.



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SARANAC LAKE  
ALLEN I. VOSBURGH  
1899

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## PREFACE.

Archaeologists should devote more time to the study and description of the singular and interesting ceremonial or ornamental objects which fill our museums and private collections. Perhaps one does not exaggerate in saying that the larger museums are exerting every effort to accumulate vast stores of material and that the efforts of the scientists in charge are directed towards exploration and acquisition. Two of the leading museums in the country are acquiring material faster than it can be catalogued, and certainly no publications have been issued by the two institutions I have in mind, which more than hint at what is being done. Should two men, each of whom is now well along in years, die tomorrow, the scientific value of the major portion of the collections would be greatly impaired.

It is not possible for a single individual to do more than urge the serious and detailed study of certain forms and types of prehistoric artifacts. Therefore I shall feel repaid if this Bulletin encourages investigation, although my conclusions and theories be upset. There is sufficient material at hand, and in most cases, authentic data as to locality and circumstances of discovery. While there has been little said regarding the "ceremonial" or "unknown" objects, the more numerous forms of chipped, polished, or ground implements and tools have been most fully described in the exhaustive reports of Dr. Wilson, Professor Holmes, Professor Cushing, Mr. McGuire, Mr. Fowke and others.

I am especially indebted to Dr. Thomas Wilson, Curator of Prehistoric Anthropology of the Smithsonian Institution; Rev. Wm. Beauchamp; Mr. A. F. Berlin, Professor W. O. Emery, of Wabash College, Professor F. H. Cushing, and many others.

WARREN K. MOOREHEAD,

Saranac Lake, N. Y.

November 10, 1899.

Copies of the Bulletin may be had from the author.



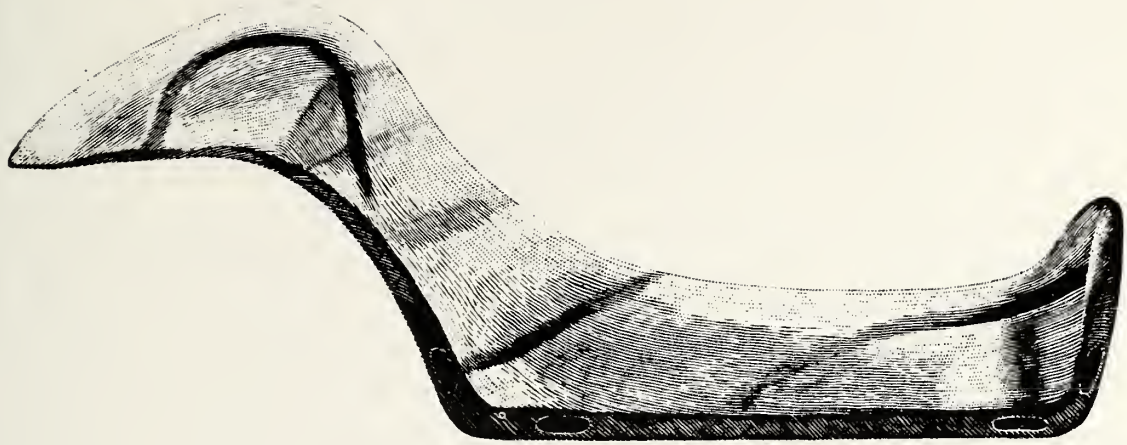


FIG. 1.  
NORTHERN INDIANA.  
GRUHLKE COLLECTION. S.  $\frac{1}{1}$ .  
Material, light blue slate.

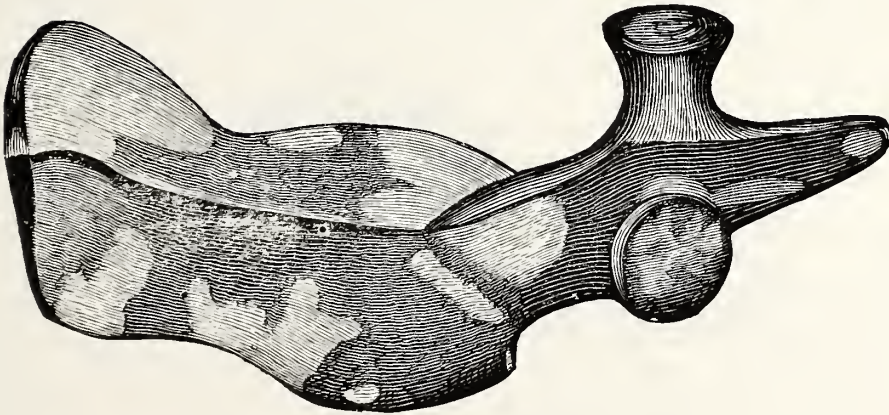


FIG. 2.  
WESTERN NEW YORK.  
SMITHSONIAN COLLECTION. S.  $\frac{3}{5}$ .  
Material, diorite with feldspar crystals.



## The Bird-Stone Ceremonial.

It is with some apprehension that I begin the description of a class of objects regarding which most archaeologists are silent. But some one must assume the initiative. Recently, while reading the excellent reports prepared for the State of New York by my friend Rev. William Beauchamp, I noted with pleasure that he devoted some pages to the "bird-stone" ceremonial. I investigated the subject and aside from a somewhat lengthy account by Professor David Boyle of the Canadian Museum and shorter references on the part of Messrs. Wilson, Douglas, Fowke, Abbott, Gilman, Cushing, Jones and a few others; found that the subject has been ignored.

The undefined class of prehistoric ornaments or charms which we have been calling "ceremonials," represents stone age art of no mean degree. Not only are these slate and granite objects of such finish and polish as to stamp them as something beyond the ordinary, but their graceful forms commend them alike to the museum and the collector.

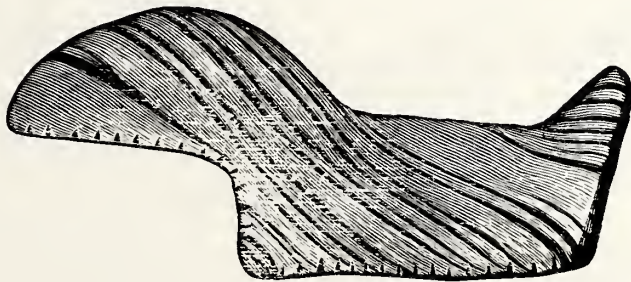


FIG. 3.

WESTERN NEW YORK.

NEW YORK STATE MUSEUM COLLECTION. S.  $\frac{1}{4}$ .



Even persons having no archaeologic inclinations are able to appreciate their beauty and workmanship. Admiration of fine paintings is not confined to art critics, for any person with an eye to the beautiful or to color effect can enjoy and understand them. So it is with bird-stones, and the person of education or culture who may see nothing attractive in the ruder flint or stone tools—and to whom they mean simply “relics” of savagery—need but examine a few of the figures herein set forth to find something well worth his consideration. To such I recommend the study of prehistoric American art.



FIG. 4.  
CENTRAL ONTARIO.  
CANADIAN MUSEUM COLLECTION. S. 1.

The study of these objects must be confined to the specimens themselves. There is scant information as to their having been worn by the tribes and I am unable to find a record of their discovery at the heads of skeletons or in any of the tumuli or graves. There is this exception, that a somewhat different form was found in the altar of the Effigy Mound, Hopewell Group, by the World's Columbian Exposition Survey. But this sheds no light upon the bird or “saddle” form proper. Many hundreds of the choicest possessions of the Hopewell people were cast into the altars upon the sacrificial fire. Even had we found the true birdstone ceremonial along with the copper, obsidians and effigies, it could have but one interpretation: that this form was made and used by the Hopewell people.\*

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\* It is largely by reasoning and comparison that we learn regarding the use of these artitacts, and readers must bear with me if the matter becomes a little tedious.

We will first consider the four or five variations: Figure 1 stands for a type which I select as representative or distinctive. It is my "foundation", if I may use such a term, and while Figure 2 is an elaboration and represents a higher art, yet Figure 1 is the more common. Common is used as a comparative term. None of the bird-stones are common in the sense that stone axes are common. They bear the same relation to the art of prehistoric times that real gems do to the common or cheap jewelry of to-day. Figure 3 represents a very small form and Figure 4, being short and thick, would

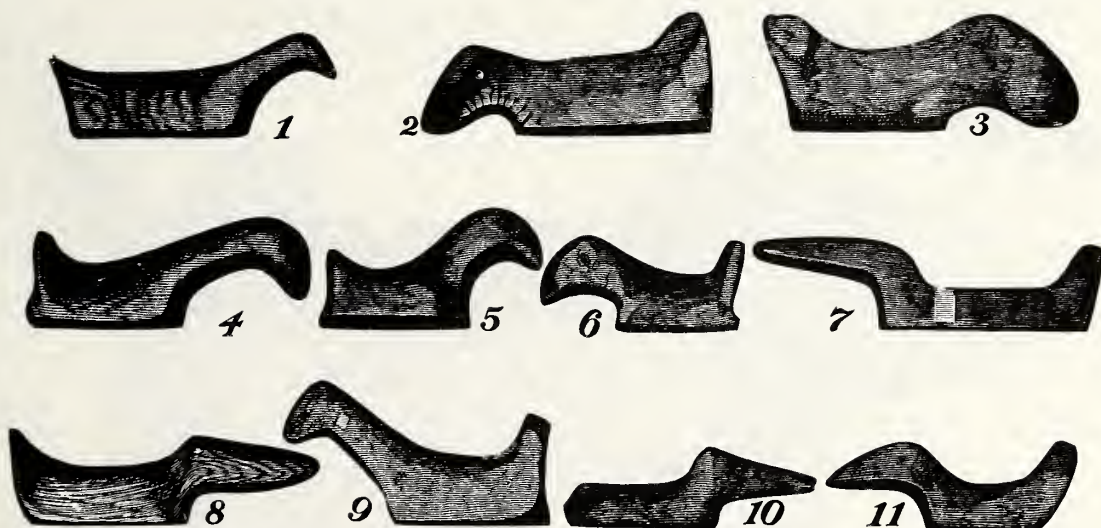


FIG. 5.

PROFESSOR EMERY'S COLLECTION. S.  $\frac{1}{3}$ .

doubtless survive longer than the others. Let us here observe that but few of these stones are found damaged or broken. They may be rough, or fine, yet 80 per cent. of them are perfect, or nearly perfect; whereas the banner, or butterfly, and the tablet of unusual size, or the perforated ceremonial of pick or crescent shape, is frequently broken or damaged. Less than one-half of such specimens are entire. Figs. 1 and 2, which are nearly as delicate as other ceremonials, seems to me to mean more than that they have withstood freezing, the plow, passing of heavy animals and other destructive

agencies which have conspired to destroy the pick, banner, crescent and tablet like forms. Possibly in wars, or raids, the victors purposely broke certain objects and spared others. Why? I know not. Be this as it may the fact remains that bird-stones are usually preserved, and is testified to by many collections whether large or small.

Figure 1 is from De Kalb County, Indiana, and is in Mr. Gruhlke's collection. Figure 2 is from the Smithsonian collection and was found in New York. Dr. Thomas Wilson says of it:\*

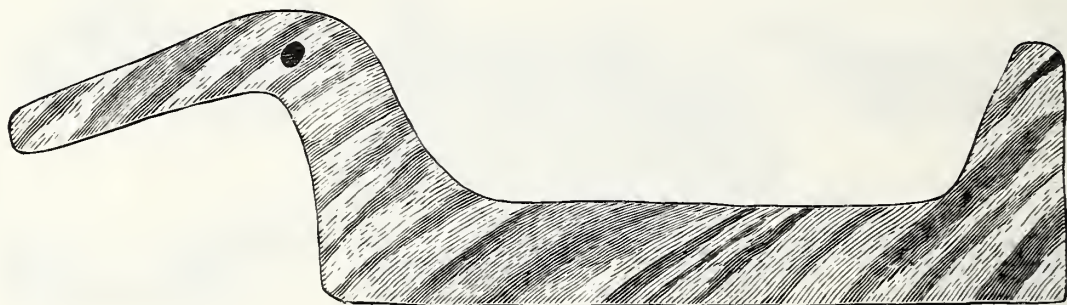


FIG. 6.

SOUTHERN OHIO. S. 1.

Figure 2 is from Western New York. It is made in the form of a bird, which from the number of similar specimens have given the name to this class. The eyes are represented by great protuberances which must have greatly increased the difficulty of manufacture. It is made from a boulder or large piece, and while the material is hard, it is not tough but rather fragile. It could not be chipped like flint nor whittled like soapstone, but must have been hammered or pecked into shape and afterwards ground to its present form, then polished until it is as smooth as glass. A consideration of the conditions demonstrates the difficulty of making this object and the dexterity and the experienced working required. The United States National

\*Smithsonian Report for 1896. P. 451.



Museum possesses many of these specimens. While they bear a greater resemblance to birds than anything else, yet scarcely any two of them are alike and they change in form through the whole gamut until it is difficult to determine whether it is a bird, a lizard or a turtle, and finally the series ends in a straight bar without pretense of presenting any animal."

Figure 2 is more like a bird than Figure 1 but is not frequently found. Moreover, there is a difference in the distribution of Figures 1 and 2. Figure 1 is found in the Eastern and Central States north of the Ohio River. It is very rare in the Potomac, Connecticut and Hudson Valleys and the eastern (northern) Alleghany region. But it is often found in Western New York, the Ohio Valley, the Great Lakes region and Central Canada.



FIG. 7.

SOUTHERN MICHIGAN. S.  $\frac{1}{2}$ .

Inquiries sent to archaeologists in Iowa, Illinois, Missouri, Kentucky, etc., fail to establish its habitat as south or west of Indiana. Dr. J. F. Snyder, the well known authority, reported that he considers it as confined to the Northern and Eastern United States. I fail to find anything like it in form in the archaeologic reports on Europe, Central and South America or the Pacific Coast.

Figure 2 is less frequently found than Figure 1. In Western New York, Central Canada, Northern Ohio and Indiana, Michigan and Wisconsin, it occurs occasionally. In the New England States and the Potomac and Delaware regions but one or two have been found. Lest the word common be misunderstood, after tabulating all the specimens of bird or saddle-stone class which I can find mentioned as in collections, there is a total of 264 of Figure 1, 26 Figure 2, 62 Figure 3, and 37 Figure 4 and "scattering." As I have not seen the Smithsonian, Peabody, Fields, American or the Ohio State collections for some time, the totals here given are doubtless below the actual numbers on hand. Mr. A. E. Douglas, of the American Museum of Natural History, has about 90; Mr. Norman Spang, 10 to 12; Mr. A. C. Gruhke, 11;

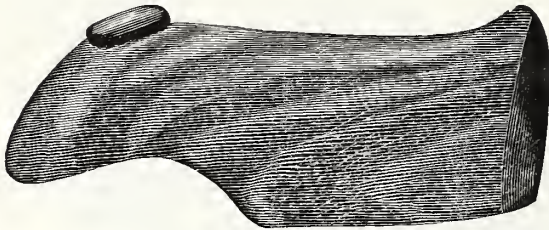


FIG. 8.  
CENTRAL ONTARIO.  
CANADIAN MUS. COL. S  $\frac{1}{2}$ .

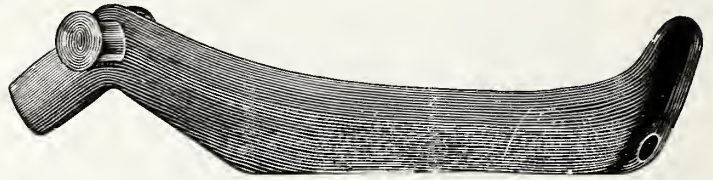


FIG. 9.  
CENTRAL ONTARIO.  
CANADIAN MUSEUM COLLECTION. S.  $\frac{1}{2}$

Professor Emery, 11 in his collection; Mr. R. S. P. has 12 or 13, and doubtless there are several private exhibits which would swell the totals to 100 or more.

The study of distribution shows that Fig. 2 is less common than the others. It is confined to a smaller area. The distribution also brings about

another important fact; that these objects can not be set down as belonging to the mound-building people exclusively. If so, we would find them in the South, West and Southeast and along the Upper Missouri River. The great mound areas—save Southern Ohio—do not contain them. Illinois, Tennessee and Missouri with their thousands of tumuli and graves, have not furnished bird-stones. In Canada, where they occur in considerable numbers, according to Professor David Boyle, Curator of the Museum of Archaeology of the Dominion of Canada, there are mounds, but neither as large nor as numerous as in the Ohio Valley. Southern Ohio yields a number of these bird-stones,



FIG. 10. S.  $\frac{1}{2}$ .



FIG. 11. S.  $\frac{1}{2}$ .



FIG. 12. S.  $\frac{1}{4}$ .

ALL FROM CENTRAL ONTARIO, CANADA. DOMINION MUSEUM

but not so many as Northern Ohio where mounds are few and small. Western New York State possesses many villages and few mounds, yet this type is more common there than elsewhere in a given space. Gravel knolls or kame burials contain a class of objects somewhat different from those found in the mounds, yet no bird-stones are reported from them. All these facts must be taken into consideration as we study the ceremonial.

Figure 6 is from Southern Ohio and of the banded slate so frequently employed in the manufacture of these specimens. It is rather unusual in form having the square (or slightly rounded) bill (or mouth) and discs sunk to represent the eyes. The object was in my collection in '89, but just what disposition I made of it I do not now recall.



Figure 7 is remarkable in that it is so large. It is from Michigan and is shown full size. This specimen may not be a "bird" but as to that let other and more competent observers decide. As will be seen by the shading, it is of banded slate and well worked. Obviously it is too large and heavy for a head ornament. The perforation is forward and at the *side*. This is very unusual, and marks a departure from the prevailing custom of placing the holes at the ends and in the base.

Figures 8 to 12 inclusive are from the Dominion Museum collection. I have copied the illustrations from Professor Boyle's reports and shall quote his remarks presently. Figure 9 is seldom found south of Canada or outside of New York State. I do not know of more than one or two from Ohio or Indiana. Figure 8 is of the short and heavy type and is a "connecting link" between my types as illustrated in Figures 1 and 2. Figure 12 may have

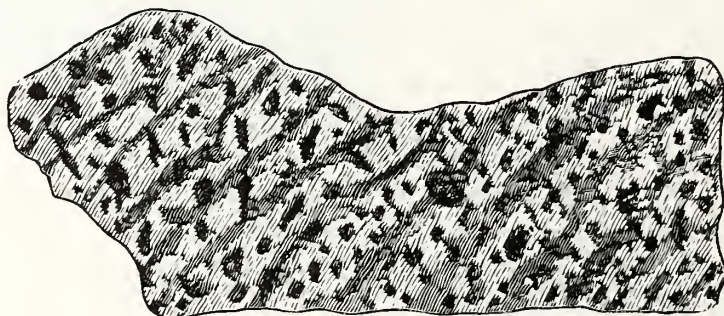


FIG 13.

NORTHERN OHIO,  
R. S. P. COLLECTION. S. 1.

been restored from a broken state to usefulness. It has the body of the type shown in Figure 9. Possibly the head was destroyed. Yet it may be in its original state of finish, and if so, is a link between the straight bar-amulet and the bird-stone.

Students should first observe the care and skill with which these objects are made. There are unfinished specimens of most of the several classes of ceremonials, but of the bird-stone I never saw but five or six which gave a clue

to the method of manufacture. Two of these, Figures 13 and 14, are herewith given, both being in Mr. R. S. P.'s collection.

The range of material is not broad. It is almost entirely confined to banded slate or harder shales. Professor Emery's 11 specimens cover a wide territory, yet they are all of Huronian slate or shale. Objects like Figure 2 are usually of porphyry or granite,\* and occasionally porphyritic feldspar; in short, they are of stones of mottled or showy colors, preferably red, gray, white or brown. The illustrations in this Bulletin of types like Figure 2 show the blotches or shades of the stone. Figure 1 is sometimes found of plain black slate or dark blue with very minute bands, or bands so small

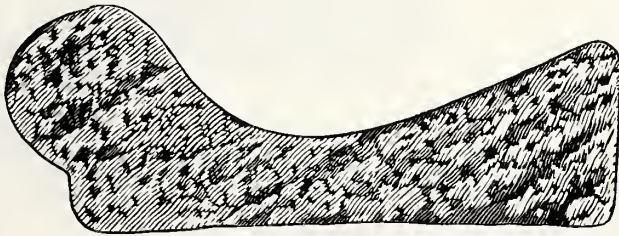


FIG. 14.  
SOUTHERN OHIO.  
R. S. P. COLLECTION. S. 1.

that the specimen appears very compact and without variation in color, but as I have said, bits of slate and shale were selected which showed variegated colors, and as the specimen approached completion these shades or bands were brought out conspicuously by careful and persistent polish.

The making of any one of these ceremonial ornaments was no boy's play and required a great deal of time. I take exceptions to the remarks of some observers, that most stone objects could be brought to perfection in a few hours.

Having selected a suitable stone, it was held in the left hand and pecked and hammered with a small hammer stone such as are common all over the

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\* They have been found made of feldspathic granite or diorite.

United States and usually of a harder material than the object to be worked.\* Having been given a rough outline of the desired shape (see Figure 13) it was further hammered or pecked with a smaller hand hammer stone and somewhat more reduced. There was now danger of breaking by hammering and the specimen was ground, or rubbed and scraped with bits of sandstone, flint, or very rough pebbles until it assumed more nearly the desired form (see Figure 14). We have no positive information as to how it was completed, but guided by our knowledge of the manufacture of other implements it is safe to assume that this was the process. The rubbing, cutting

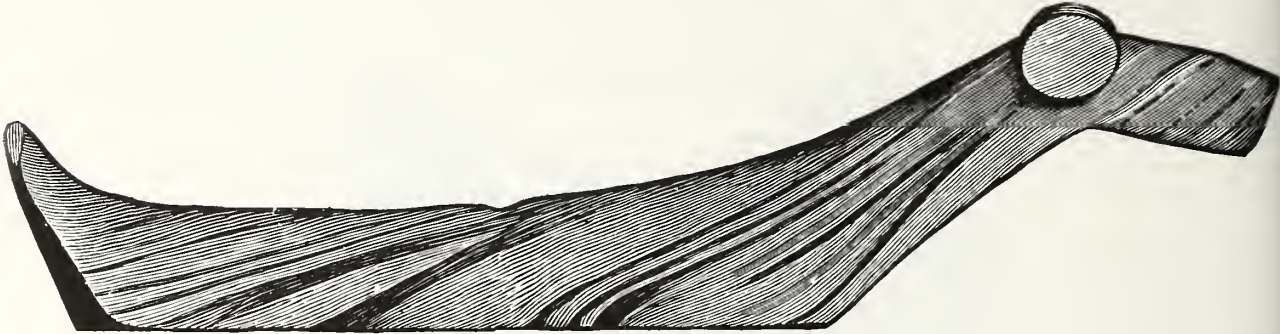


FIG. 15.

DEXTER, N. Y.

NEW YORK STATE MUSEUM COLLECTION. S.  $\frac{3}{5}$ .

and scraping must needs be very carefully applied toward the completion of the object. Doubtless the final rubbing and polishing and finishing touches were given with wood and lastly with buckskin. This latter would give gloss and finish to the specimen. Perforations at each end of the object may have been drilled just before it was completed or reserved until the last. That we do not know. Sometimes these perforations broke during the pro-

\* In the American Anthropologist, Smithsonian and Bureau of Ethnology reports, and Archeologist, are numerous papers by Professor Holmes, Mr. McGuire, Professor Cushing, Dr. Wilson, and others, on stone working. The list of titles is too long to be given here.



cess of making, or they may have broken while in use subsequently. Quite a number of bird-stones show a second perforation from the corner or end.

Materials of which they are made need not have been carried any great distance and we usually find them made of stone occurring in the locality. However, finished objects may have been transported to the tribes who did not live in the region where shale or slate could be obtained. This was only

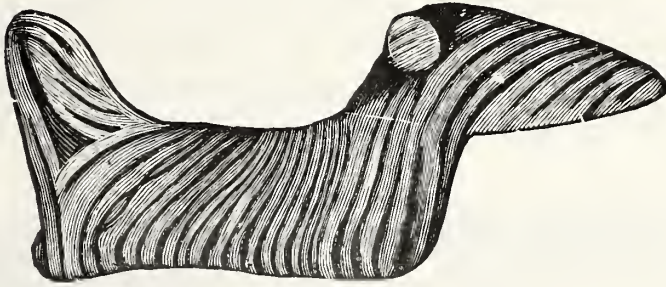


FIG. 16.

DRESDEN, N. Y.

NEW YORK STATE MUSEUM COLLECTION. S. 1.

in rare instances, as I am informed that shales and slates are very widely distributed.

Now as to the thick or short specimens, such as Figures 3, 4, 8 and several in Professor Emery's exhibit, some of these are unfinished specimens and ready to be worked and perforated. Others are doubtless completed. Some were left in this form for convenience in trade (there being less danger of breakage) or, possibly, made by less skilled artisans in imitation of the more beautiful specimens and were worn by being tied by thongs over the back of the objects rather than through the perforations; for in many short and thick bird-stones there are no perforations.

Sometimes these specimens show restoration to usefulness by being re-drilled.

In many the back is very sharp or angular, others are rounded. The object is flat under the head and neck and down the breast in types like Figure



1. However, in Figures 2 and 11 the neck is curved and not flat underneath.\*

The shortest (well formed) bird-stone I have observed is two inches long. The average is three and one-half to four inches. Ones exceeding seven inches are rare and nine inches or more are very rare. The height is from two-thirds to one and a half inches, with an average of one inch. While a general similarity of form is seen, the proportions vary. In one the head is longer, or the body than in another. Short, thick heads and heavy short bodies naturally go together. While the proportions may not be true yet the specimens generally appear graceful and pleasing to the eye.

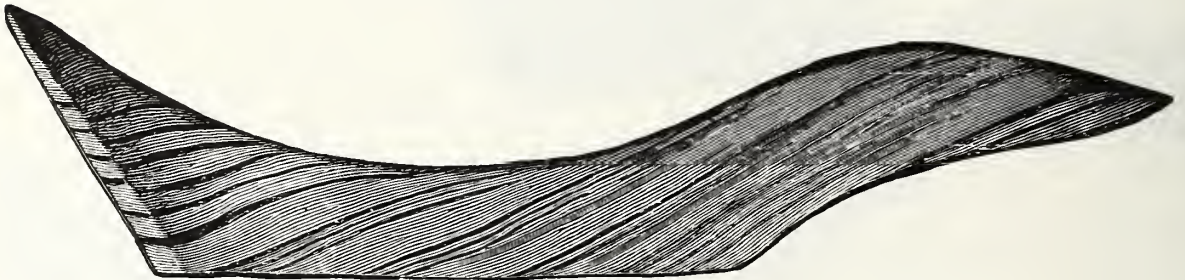


FIG. 17.

JEFFERSON COUNTY, NEW YORK.  
NEW YORK STATE MUSEUM. S. 1.

While a series may be arranged in any large museum beginning with the most pronounced bird-stones and ending in a straight bar, yet the line of demarkation is not difficult of establishment. I would not include in the bird-stone class specimens in which the "head" is not clearly defined. If the ends be alike (slight ridges) and the body long and slender, the specimen should be classed as a "bar amulet"†. An occasional specimen is found as near the "bar amulet" type as Figure 12, yet it appears to me that Figure 12 is a bird-stone. The straight bar and the bar with enlarged ends are not to be considered bird-stones, although they are in the ceremonial class. It will be observed that Figure 35 in Mr. Gruhlke's collection is peculiar. It

\* Flattening of the neck or breast (in front) prevails.

† This term is meaningless and emphasizes the need of an archaeological nomenclature.

may not be a finished specimen, being unperforated, yet I am of that opinion because of the high polish and the slight evidences of use found on the bottom.

In bird-stones the perforations vary in size, usually being from one-third to one-fourth of an inch in diameter, wider at the opening (or exterior) and narrow (or smaller) at their point of union. They seem to have been made with flint pointed drills. The reed or wooden perforators made a more even hole.

Figures 10 and 26, and Figure 5 in Professor Emery's collection, are the usual "short but high" type of bird-stones and are both beautiful specimens. The heads are abruptly curved downward as in most of the shorter speci-

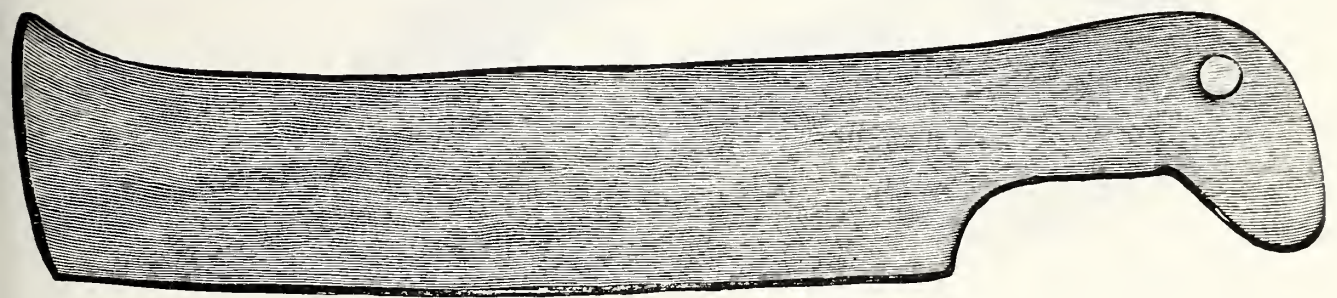


FIG. 18

CLINTON COUNTY, NEW YORK.

NEW YORK STATE MUSEUM. S. 1.

mens. Usually the long, low, slender ones have heads straight and pointed, or at least but slightly curved. Their tails are very broad, and generally an inch to an inch and a half high, with a straight perpendicular at the rear.

The Figures 16 and 19 really represent birds more than the saddle shaped ones presented in many figures, and it must be remembered that there is a marked difference between the bird and saddle forms.

Two remarkable bird-stones, somewhat like Figure 2, are in the Smithsonian collection. One, No. 58,552, has a head like Figure 2 or Figure 23, only that the eyes (or ears) are smaller. The tail is not elevated and there are two sets of perforations. The back is high and sharp. It was found in

Broome Co., N. Y. It is about  $2\frac{2}{3}$  inches long and  $1\frac{1}{3}$  inches high. Material, diorite.

No. 139,532 of the Smithsonian collection is shown in my Figure 39 full size. Found in Michigan, by Mr. C. A. Thompson. Material, diorite with large feldspar crystals.

This is a type coming in between Figures 1 and 2. It has the bird head and small eyes, but its body is low and the tail is not elevated. It is broad,

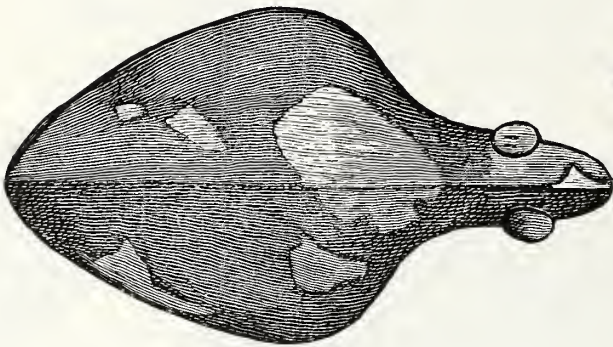


FIG. 19. S.  $\frac{1}{4}$ .



SIDE VIEW FIG. 19.



FIG. 20

ALL FROM WESTERN NEW YORK.  
NEW YORK STATE MUSEUM COL. S.  $\frac{1}{4}$ .

doubly perforated and somewhat turtle like in form. I class it as a connecting link between the types for which Figures 1 and 2 stand; however, readers may conclude that other figures stand for the "connecting link." I will thank archaeologists for their views as to where the saddle form ends and the real bird effigy begins.



An occasional bird-stone has but one set of perforations and they are in the forward end. These, as well as shorter and heavier ones, could not be securely fastened without some trouble. Were they intended for wearing on the head? If there is merit in the theory that bird-stones were kept by the shaman in his "sacred lodge", ought not it to be confined to the short ones such as Figures 22 and 27?

The Wisconsin specimens are rather peculiar. Mr. H. P. Hamilton sends me drawings of three (Figs. 25, 26 and 27) which I reproduce full size. There is not much to remark in Figure 26 save that it is "heavy" and not so graceful as the southern ones. Figures 25 and 27 have bars or elevations around

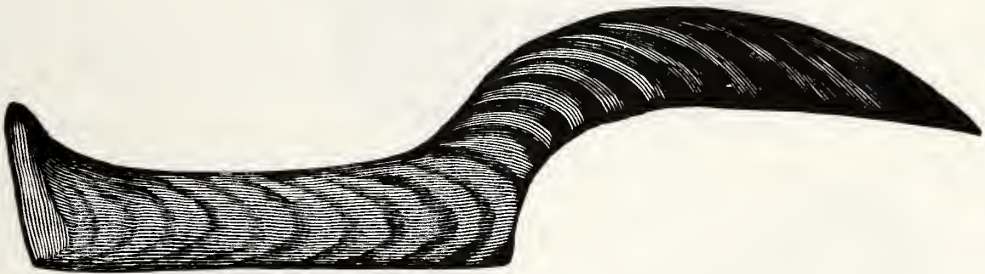


FIG. 21.

CAYUGA CO., NEW YORK.

NEW YORK STATE MUSEUM COL. S. 1.

the perforations. Dr. Beauchamp and Professor Boyle note this in some New York and Canadian types. There is no elevated tail in either. Figure 25 has the enlarged eyes, a flat (not rounded) breast, and a peculiar rounded tail. It may be an animal rather than a bird effigy.

In these two the elevations in which the perforations are made, seem to interfere with their use as head ornaments. I do not believe that Figures 25 and 27 were worn as such.

Dr. Beauchamp in the Bulletin of the New York State Museum,\* gives a very good description of some fifteen bird-stones. I have reproduced the il-

\*Polished Stone Articles used by the New York Aborigines, p. 60. Albany, 1897.

illustrations he gives, and as his text is timely, I quote at length from his paper.

"The theories about their use seem fanciful, as some certainly are. Two writers assert that they were worn by married or pregnant women only, and many have accepted this statement. Others think they were worn by conjurers, or fixed on the prows of canoes. It is enough to say that some of



FIG. 22. S. 1.

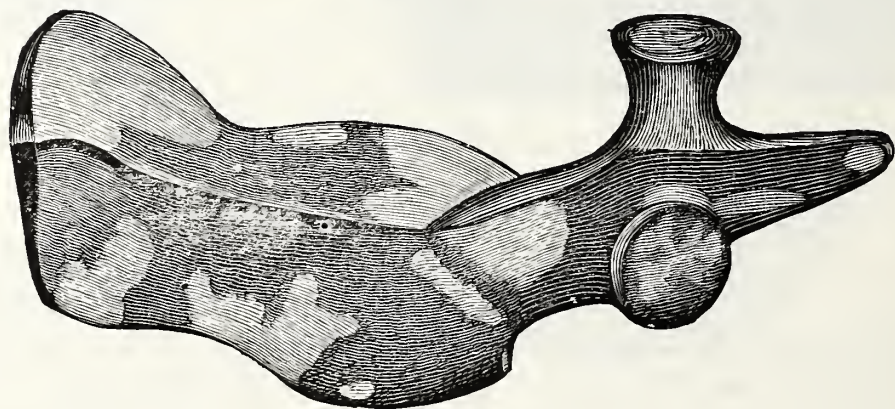


FIG 23.

SENECA RIVER, N. Y.

NEW YORK STATE MUSEUM COL. S. 1.

the perforations are not adapted to any of these uses. It seems better to class them with the war and prey or hunting gods of the Zunis, some of which they resemble. In that case the holes, of whatever kind, would have given a firm hold on the thongs which bound the arrows to the amulet, a matter of importance in an irregular figure.



"These perforations form the most important feature. The amulet may be but a simple bar, but at each end of the base is a sloping hole, bored from the end and base and meeting. To this necessary feature may be added a simple head or tail, and there also may be projecting ears. None of these are essential. They are but appropriate or tasteful accessories.

"Two notable collections contain a large number of amulets. In the Canadian collection at Toronto there are about 50 bird amulets.

\* \* \* \* \*

(He mentions Mr. Douglass' 70 specimens and also refers to the rarity of bar-amulets in Western New York).

"They were variable in material as well as form, although most commonly made of striped slate. Perhaps full half have projecting ears, when of the bird form. In the wider forms, usually of harder materials, there are often cross bars on the under side, in which the perforations are made. Occasionally these are not entirely enclosed, yet are without signs of breakage. This seems to prove that these were not intended as means of attaching them to any larger object, on which they would rest, but rather for fastening articles upon them, as in the Zuni amulets already mentioned, and which were illustrated by Mr. Frank H. Cushing, in the second Report of the Bureau of Ethnology. On comparison a general resemblance to these will be seen, and in a few cases it is quite striking. That they were used in this way, rather than in those suggested by others, is a reasonable conclusion which gains strength with fuller study. As a class they belong to the St. Lawrence basin.

\* \* \* \* \*

"Figure 15 is a remarkably fine bird amulet of green striped slate,\* the longest we have seen from New York, but reduced in the illustration. It is  $9\frac{7}{8}$  inches from tip to tip, and of moderate height and thickness. It was found at Dexter, near the mouth of the Black River, and although in three pieces, was not otherwise defaced. The back is sharp, and it has projecting ears and a long neck. The head ends squarely. Another, from the same

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\*I have changed Dr. Beauchamp's numbers of figures to correspond with my series.

county, is also large, being  $8\frac{5}{8}$  inches long by 2 high. It has no projecting ears.

"Figure 16 is from Dresden, on Seneca Lake, and is of green striped slate. The ears are usually small. It is a fine article, and is  $3\frac{1}{2}$  long by  $1\frac{1}{2}$  high. Figure 17 is of the same material, but is much depressed. The sloping tail expands to 3 inches in width. This is from Jefferson County, and the length is  $6\frac{1}{8}$  inches.

"Figure 3 is also of green striped slate, from the Seneca River, and is  $3\frac{1}{4}$  inches in length. There are no ears, but along the edges are 91 notches.



FIG. 24.

WESTERN NEW YORK.

NEW YORK STATE MUSEUM COL. S. 1.

This feature often appears, but not to this extent. Figure 18 is of trap rock and comes from Clinton County. It is rude, depressed, and has small ears. The general form is quite straight, but the tail is slightly raised. It is more suggestive of the Zuni amulets than most forms. The dimensions are  $6\frac{7}{8}$  long by  $1\frac{1}{2}$  inches high.

"Figure 19 is a broad form of mottled stone,  $3\frac{3}{8}$  long by  $1\frac{3}{4}$  inches high. It comes from Newark Valley, Tioga County. There are small projecting ears and the tail comes to a point, as in some others of this general form and material. Two views are given of it. This form is highly polished, and the basal perforations are not always completely enclosed. They have also as a rule, a slight transverse ridge, in which the perforations are made.

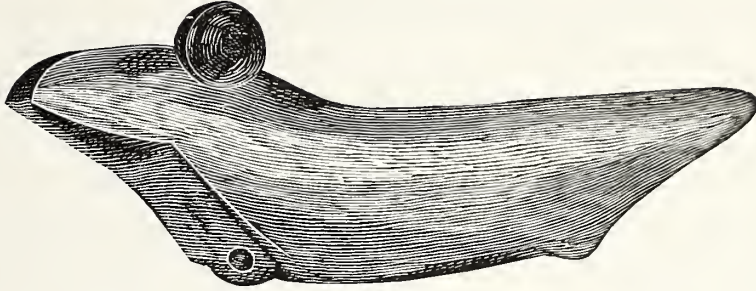


FIG. 25. S.  $\frac{1}{1}$ .

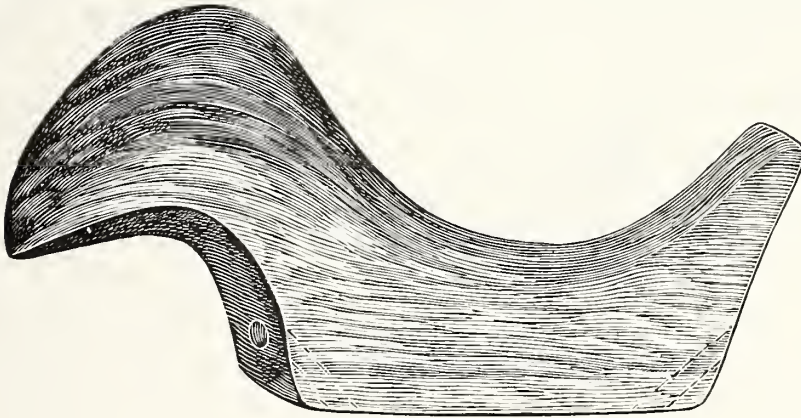


FIG. 26. S.  $\frac{1}{1}$ .

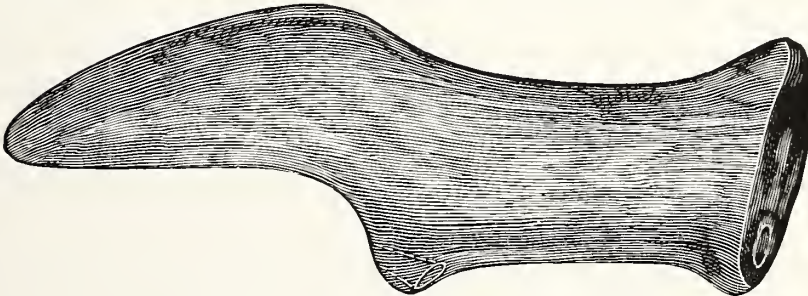


FIG. 27. S.  $\frac{1}{1}$ .

WISCONSIN.

H. P. HAMILTON COLLECTION.



"Figure 22 comes from near the Seneca River.       \*       \*       \*       \*

Figure 24 is from Brewerton, where many have been found. It is quite thick and heavy, making a strong contrast with the last. The material is a grey striped slate and the ears are small.

"Figure 23 is a very curious and fine bird amulet from the Seneca River, 4½ inches long by 1¾ wide, made of a mottled dark stone, grey and yellow, hard and highly polished. The ears project to an unusual extent, and the forward perforation is not entirely closed. It closely resembles one from Grand Rapids, Michigan, in form and material, but has a more expanded tail. In fact it may be considered the finest example of this class of amulets yet found."

Dr. Beauchamp has had unusual advantages for the study of bird stones. He observes in one specimen of brown slate; "which is broken, has a lateral perforation, a frequent feature for a secondary use of ornamental stones, allowing them to be suspended as decorations. The edges are also notched; a frequent feature of amulets, perhaps as a record." He notes notched ears, also grooved ears or eyes in some of them. One water worn bird-stone from the beach of Cayuga Lake had a groove across the base. He thinks bar-amulets were all used the same way. While not especially ornamental they have been "used as the Zuni amulets were," he says.

Mr. Gerard Fowke and Professor David Boyle should be quoted upon this subject. Mr. Fowke says :\*

"Stone relics of bird form are quite common north of the Ohio River, but are exceedingly rare south of that stream. (He illustrates the same specimen figured by Dr. Wilson.)

"According to Gilman, † the bird shape stones were worn on the head by the Indian women, but only after marriage. Abbot‡ quotes Col. Charles Whittlessey to the effect that they were worn by Indian women to denote pregnancy, and from William Penn that when the squaws were ready to marry they wore something on their heads to indicate the fact.

\* Stone Art, Bureau of Ethnology Report for '91-2, Page 125.

† Gillman, G. in Smithsonian Report for 1873, Page 371.

‡ Primitive Industry, Page 371.

"Jones\* quotes from DeBry that the conjurers among the Virginia Indians wore a small, black bird above one of their ears as a badge of office."

Professor Boyle says: † "Although for convenience known as 'bird-amulets'—most of them being apparently highly conventionalized bird forms—now and again one sees specimens that are *not* suggestive of birds, whatever else they may have been intended to symbolize. In some instances there has not been any attempt to imitate eyes even by means of a depression, but in the majority of cases the eyes are enormously exaggerated, and stand out like buttons on a short stock, fully half an inch beyond the side of the head. In every finished specimen the hole is bored diagonally through the middle of each end of the base, upwards and downwards. If merely for suspension



FIG. 29.

STARK CO., OHIO.

BAATZ COLLECTION. S. 2/3.

while being carried, one hole would be sufficient, but the probability is that these were intended for fastening the 'amulets' to some other object, but what, or for what purpose is not known. It has been suggested that these articles \* \* \* \* were employed in playing a game; that they are totems of tribes or clans; and that they were talismans in some way connected with the hunt for water fowl. They are, at all events, among the most curious and highly finished specimens of Indian handicraft in stone found in this part of America, and the collection of them in the Provincial Museum is said to be the best that has been made."

Professor Boyle speaks of the bar-amulet after treating of bird-stones but he does not class them as the same kind of ceremonials.

\* Antiquities of the Southern Indians, Page 30.

† Notes on Primitive Man in Ontario, by David Boyle, Curator of the Archaeological Museum for the Dominion of Canada. Toronto, 1895, Page 67.



General Thurston, the Southern authority, reports bar-amulets as occasionally found south, but he does not speak of bird-stones. \*

Dr. A. L. Pease, of Masillon, Ohio, sends drawings of three bird-stones found within twenty miles of his residence and one from a mound in West Virginia. This is the only mound specimen brought to my notice of which there is positive record. There may be others, and if so, I shall be glad to learn of them. His specimen is something similar to that found in the altar of the Hopewell Effigy mound. He includes outlines from

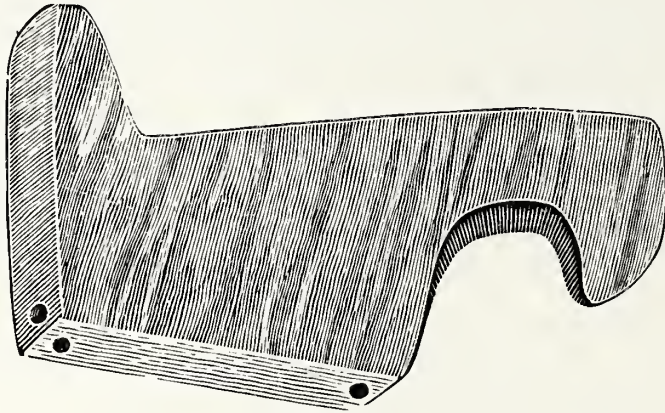


FIG. 30.

MONTGOMERY. CO., OHIO.  
BINKLEY COLLECTION. S. 1.

Mr. Baatz's collection. One has an unusually long neck and short body.

Professor A. F. Berlin, under date of December 5th, writes me his views: "I hesitate to believe that they were worn by certain Indian women. Not all of them are perforated, nor of those that I own and have seen do the perforations show signs of wear. Had aboriginal women worn them as stated abrasion would be evident in at least some of their apertures. This would also be true of the canoe theory. I cannot accept either of the above statements. What, then, was their use, will be asked?

\* Antiquities of Tennessee, G. P. Thurston, Page 293.

"The aborigine was a superstitious creature and as superstition begets much ceremony something had to be contrived to be of help in their religious or other rites. This bird or saddle-stone then had attributed to it a certain occult power and became a ceremonial weapon, and in instances of this kind had its position in the ceremony.

"So also do I think were used in the various rites the banner-stone, gorget and other nicely wrought objects. The addition of perforations perhaps made the meaning of the implements in the rites in which they were used more suggestive."

While the first half of this Bulletin was being printed, I received from



FIG. 31.

NORTHERN INDIANA.

HILL'S COLLECTION. S.  $\frac{2}{5}$ .

Professor Cushing several prints of plates he is to use in a memoir (shortly to be published) upon "The Calumet, etc., etc." The illustrations received cover the bar-amulet and bird-stone types. Professor Cushing has kindly permitted me to reproduce two of the figures.

It is interesting to note that we have reached similar conclusions independently. Neither of us was aware that the other was at work upon the subject of bird-stones, and, indeed, that class is only one of the many forms of ornaments considered by Professor Cushing in his memoir.

I have not thought that the flat slate ornaments (perforated) or tablets were exclusively worn suspended, but on the contrary believe that many of them served as bases for little effigies or ceremonial objects. Professor Cush-

ing's Figures 36 and 37 clear up much of the mystery as to the mounting of bird-stones. Still, it must not be presumed that all bird-stones were mounted in this manner. Nor is it apparent how tablets or ornaments (flat) having but one perforation were convenient for this purpose. To me the double perforated (two holes close together, near the ends of the tablet) ornaments would be better suited to serve as bases.

However, this is a matter of perforations merely and need not affect Professor Cushing's theory. I entirely agree with him.

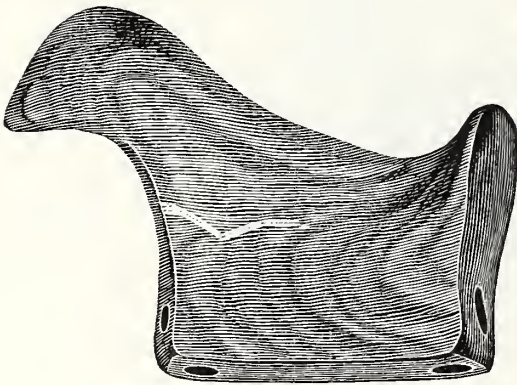


FIG. 33. S.  $\frac{1}{2}$ .  
SANDUSKY CO., OHIO.

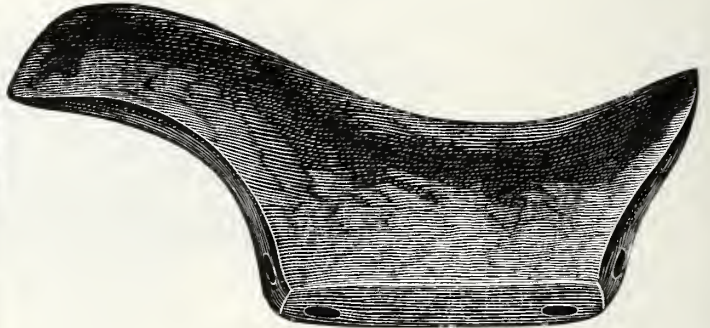


FIG. 34. S.  $\frac{1}{2}$ .  
ALLEN CO., MICHIGAN.

GRUHLKE COLLECTION.\*

Now and then we observe a bird-stone in which the holes are worn as by a string and, apparently, the object has seen long service. The wearing is in the edges towards the head and tail of the bird, (never at the sides) as if the cord were tightly drawn and the specimen permitted to but slightly move forwards and backwards. Many bird-stones show no marks of wear and in others the lower rims of the holes are but slightly worn.

Let us now theorize a little. One authority, (De Bry), says that the shamens wore black birds over the ear, but he does not say bird-stones. The effigies may have been of wood or the skins of small birds. Medicine men of

\* I am indebted to Mr. Gruhlke for loaning me eleven original bird-stones to study.



western tribes wore these latter in historic times. We can reconcile the statements that "women wore bird-stones after marriage" with "women wore them to denote marriageable age." But can it be that the same type of effigy was used by both shamen and women? May not the statement mean, rather, that certain tribes used them for one purpose and another tribe used them for a totally different purpose? There are exceptions to every rule, but I have always understood that larger objects than these bird ceremonial were included in the "make-up" of a priest's headgear. Certainly skins, feathers, bones, wood or horns formed most of it, and these were all objects of some size and when grouped together made a considerable mass. I should

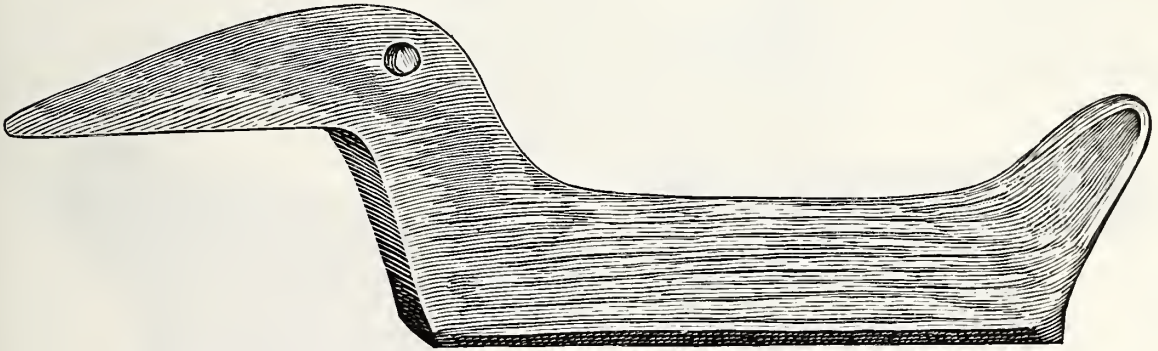


FIG. 28.

WARREN CO., OHIO.

MOOREHEAD COLLECTION. OHIO STATE UNIVERSITY MUSEUM. S.  $\frac{1}{2}$ .

think that a bird-stone would not be noticed among these, or that it must needs be mounted separately or surrounded by smaller things; otherwise it would not be seen.

Reasoning from the facts presented, an observer would establish as his first proposition that these objects were tied in upright positions. He would judge that the objects were to be in relief and prominent; not concealed in any way; otherwise perforations were not necessary, as cords could be passed around the body near the head and tail and the bird-stone thus secured.



As a second proposition the observer might conclude that he considers some bird-stones as most nearly approaching the brooding bird, and were worn by women and indicating either marriage or pregnancy. But others—notably the short ones, and those with single perforations only—he might classify as medicine or charm stones having a certain relation to the shamen; as tied to arrows or other personal possessions for “luck,” etc. “Medicine” and “charm” are very indefinite terms and, as previously stated, they emphasize the need of an archaeologic nomenclature. That we must resort to such expressions in the description of a very important class of prehistoric artifacts is indeed pitiable. These thousands of stone relics of every kind covering, as they do, a greater range in form and size, pattern and purpose than ornamental or ceremonial stones of prehistoric Europe—certainly deserve a better classification at our hands than is possible at present.

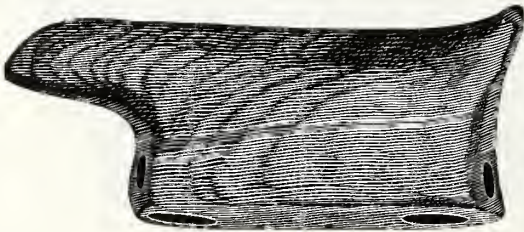


FIG. 32.



FIG. 35.

DE KALB CO., INDIANA.  
GRUHLKE COLLECTION. S. 1.

At some future meeting of Section H (Anthropology) of the American Association for the Advancement of Science, I trust that a committee will be appointed to devise a scheme of nomenclature. If we are to retain that which seems most plausible from the scant evidence at hand we must incline towards the “woman head ornament” and the “Zuni fetich” theories. Very few bird-stones are found near large bodies of water, and theories like the “canoe prow ornament” are only fanciful.

As has been said, the long slender ones, the more bird like forms and all

having two sets of perforations may have been worn by women. The short ones, the single perforated, or those with transverse ridges, are manifestly charms or dieties. To such were attached the arrows or other property—then they became sacred, or assured the owner of success, etc. If the bird-stone is a woman's ornament, would it also be used by the shamen? I think

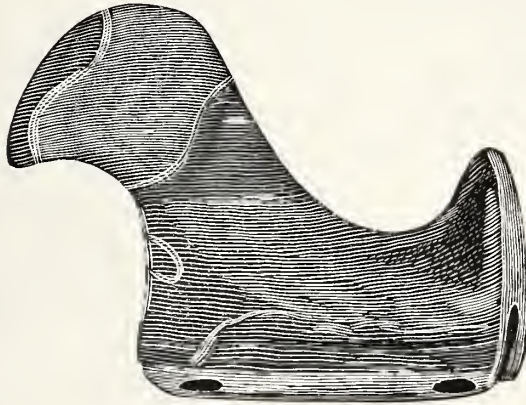


FIG. 38.  
NORTHERN INDIANA.  
GRUHLKE COLLECTION. S.  $\frac{1}{4}$ .

not. Perhaps, as has been suggested of the two types (like Figures 1 and 2), the first was worn by women and the second used by the priestly class.

#### CONCLUSIONS.

The distribution of bird-stones is to be considered when, at some future date archaeologists will better understand for what this peculiar type stands. As previously stated, I have accepted Figs. 1 and 2 as indicative of two distinct forms of bird-stones. In my conclusions I am not dealing primarily with those specimens which form "connecting links" between Figs. 1 and 2, but treat of the types themselves. After the first half of this bulletin had been printed, I received a

number of communications in answer to questions which had been propounded two or three months ago. I can only mention a few of these. The Cincinnati Art Museum sent photographs of several more or less like Fig 1, from Southern Ohio and Indiana. The State University and State Historical Society Museum, at Columbus, furnished me with drawings of specimens in their collections\*. Information from other collections strengthens me in my conclusions. In case additional facts are brought out in the investigations which I trust this Bulletin will stimulate, I will publish a second edition, for I am aware that the subject is a new one and all the questions cannot be settled for some time.

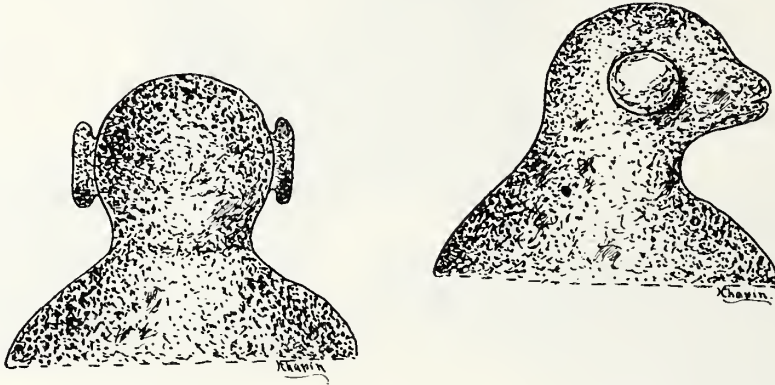


FIG. 40.

EFFIGY MOUND ALTAR, HOPEWELL.

FIELD MUSEUM COLLECTION. S.  $\frac{1}{1}$ .

All obtainable information points to Fig. 1 as the common and more widely distributed type. Whether it is the earlier, and Fig. 2 of later origin is an open question. I think so, yet that is but an individual opinion. Fig. 2 is distinctively northern. I do not know of its occurrence in southern Ohio or Indiana. Fig. 1 is much more numerous in southern Ohio and Indiana than in western New York, Wisconsin and Canada. That is the majority of

\* I wish to thank Professor Mills, of the latter museum, and Mr. Gest, of the Cincinnati Museum, for their co-operation.



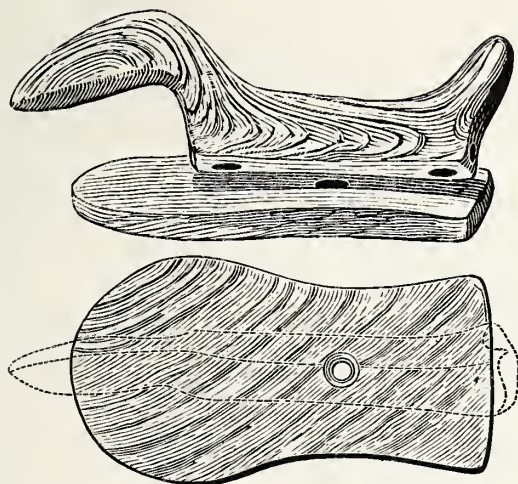


FIG. 36. S.  $\frac{2}{3}$ .



FIG. 37. S.  $\frac{2}{3}$ .

FROM DRAWINGS BY PROFESSOR CUSHING.

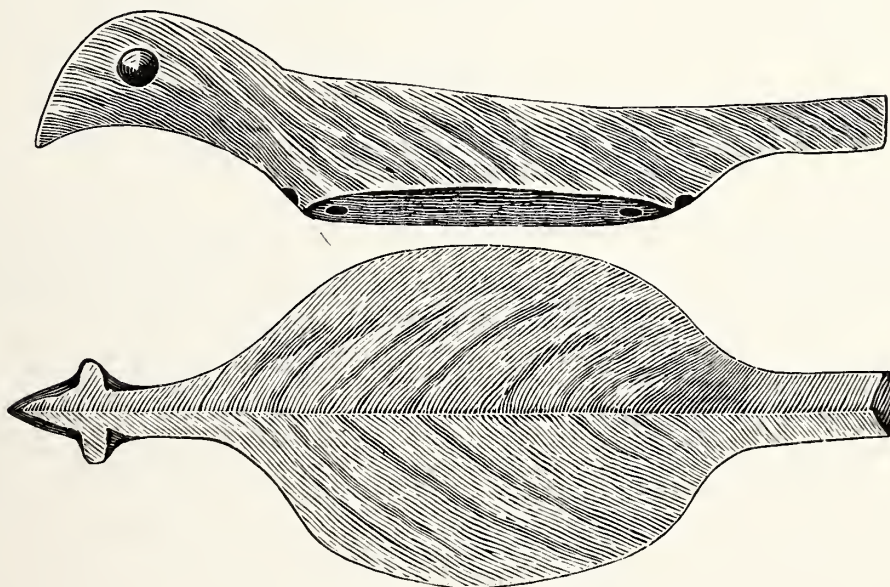


FIG. 39.

MICHIGAN.

SMITHSONIAN COLLECTION. S.  $\frac{1}{4}$ .



the specimens are of pure Figure 1 type and not variations. Specimens like Figs. 15 and 20, and Figs. 16 and 24 seem to me more like Fig. 2. In certain details they are like Figure 1, but the general shapes, the concepts or ideas evinced in their forms, to my mind, would place them nearer Figure 2. The bodies of long ones, like Figs. 9 and 15, are somewhat like Fig. 1. But there is the addition of eyes. Most of the northern specimens, whether they be long or short, have eyes. Nearly all southern specimens are saddle-stones simply and have no eyes.

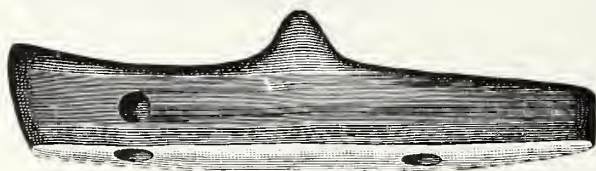
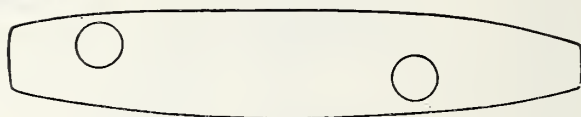


FIG. 41.



BASE OF FIG. 41.

TYPICAL BAR AMULET.

CANADIAN MUSEUM COLLECTION. S.  $\frac{1}{4}$ .

Fig. 2 cannot be connected with the "Mound epoch". Fig. 1 is just as common in central Ohio, where mounds are less numerous than in the southern part of the state where thousands of them exist. Hence, it seems, we cannot consider it an established proposition that bird-stones were known to mound-building tribes.

Students must not consider these distinctions and matters of distribution as of small importance. At first, (as to me) it may seem like hair splitting. But after careful study, I am sure that archaeologists will agree that a knowledge of distribution will go a long way towards solving the problems.

Professor Emery's collection is chiefly from southern and central Ohio and Indiana. It best illustrates my position. His specimens are mostly like Fig. 1, or at least but slight modifications of that form.

Figure 41 is not a bird-stone. The term "bar-amulet" applied to it does not explain its use.

Whatever we may conclude, is it not patent that archaeologists should spare a little time from the field and investigate the specimens now lying neglected in the exhibition cases or stored in the packing rooms? Bird-stones are but one class or type of many thousands of beautiful and unique objects.

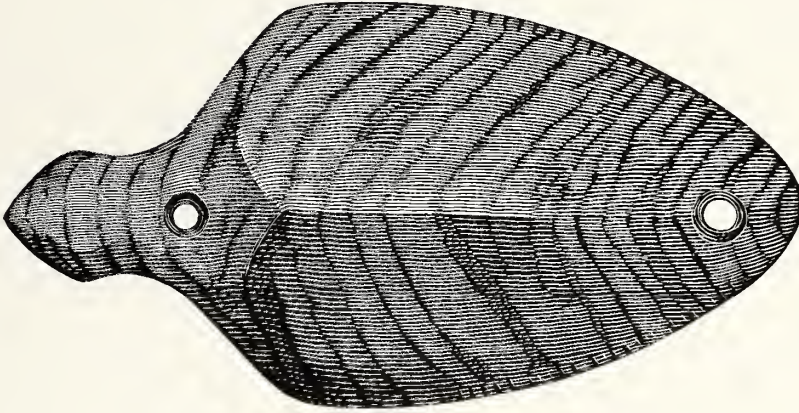


FIG. 42.

SOUTHERN MICH.

GRUHLKE COLLECTION. S.  $\frac{1}{1}$ .

Yet of the entire "high art" class\* we have much less literature than upon the simple and common "scraper", an object of neither beauty nor value and one which performed a very menial office in the hands of the tanner, the shaft maker, the fisherman, or the cook.

\* Pipes, ceremonials, discoidals, effigies, ornamental stones and all the rest.

Figure 40 is an effigy, but I do not include it in the bird-stone classification. What it represents and why it was made in this form—let the archaeological wise men answer. If it and Figure 42 are bird-stones, then the whole class of stone effigies of the mound area must be such. They are not, although they are stone effigies of unusual and interesting form.





















